## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

GILL et al.

Examiner:

Unassigned

Serial No.:

Unassigned

Group Art Unit:

Unassigned

Filed:

July 29, 2003

Docket No.:

HSJ920030016US3

(HITG.055PA)

Title:

METHOD AND APPARATUS FOR ENHANCING THERMAL

STABILITY, IMPROVING BIASING AND REDUCING DAMAGE FROM

ELECTROSTATIC DISCHARGE IN SELF-PINNED ABUTTED JUNCTION HEADS HAVING A SECOND HARD BIAS LAYER

DISPOSED AWAY FROM THE FREE LAYER

**CERTIFICATE UNDER 37 CFR 1.10** 

Express Mail' mailing label number: EV 309496537 US

Date of Deposit: July 29, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Commissioner for Patents, P.O. Box 1450,

Alexandria, VA 22313-1450.

Name: Kathleen McDevitt

## INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect

particular relevance, or lack thereof, to the present application, nor were they necessarily made by

anyone affiliated with the prosecution of the present application.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C.

§§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to

establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a

reference has been thoroughly reviewed or that any relevance of any portion of a reference is

intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of

M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked

as being considered and initialed by the Examiner, to the undersigned with the next official

communication.

Respectfully submitted,

Crawford Maunu PLLC

1270 Northland Drive

Suite 390

St. Paul, MN 55120

651/686-6633

Dated: July 29, 2003

Bv:

David W. Lynch

Reg. No. 36,204

Date Mailed: July 29, 2003

FORM 1449*	INFORMATION DISCLOSURE STATEMENT	Docket Number: Application Number: HSJ920030016US3				
	IN AN APPLICATION	Applicant: GILL et al.				
	(Use several sheets if necessary)	Filing Date: 07/29/2003	Group Art Unit: unassigned			

EXAMINER INITIAL	DOCUMENT NO.		DATE	DATE NAME CLASS		SUBCLASS	FILING DATE IF APPROPRIATE		
· · · ·	US 2002/01	54456 A1	10/24/2002	CAREY et al.					
	US 2002/01	49889 A1	10/17/2002	GILL				-	
	US 2002/0154457 A1  US 2002/0154455 A1  US 2002/0024780 A1  6,433,972  6,348,274  6,252,750  6,324,037  5,018,037  US 2001/0004798 A1  6,385,017  5,583,725  6,344,953  6,146,776  US 2002/0085323 A1  US 2001/0026425 A1		10/24/2002	HORNG et al.					
<u></u>			10/24/2002	LENSSEN					
			02/28/2002	MAO et al.					
			08/13/2002	MAO et al.					
			02/19/2002	KAMIGUCHI et al.					
			06/26/2001	GILL					
			11/27/2001	ZHU et al.					
			05/21/1991	KROUNBI et al.					
			06/28/2001	GILL					
			05/07/2002	MIN et al.					
			12/10/1996	COFFEY et al.					
			02/05/2002	KAUTZKY et al.					
			11/14/2000	FUKUZAWA et al.					
			07/04/2002	SMITH et al.					
			10/04/2001	MIYAZAWA et al.					
			F	OREIGN PATENT DOCUME	NTS				
-	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION			
						YES	NO		
	JP11045415A		1999-02-16	JP			Abstract only		
		ОТН	ER DOCUMENTS	S (Including Author, Title, Da	e, Pertinent Page	s, Etc.)			
	July 1998	July 1998  Takahashi, M., Maeda, T., Inage, K., Sakai, M., Morita, H., and Matsuzaki, M., "EDS Induced Pinned Layer Reversal Spin-Valve GMR Heads," <i>IEEE TRANSACTIONS ON MAGNETICS</i> , Vol. 34, No. 4,, July 1998.						Reversal in	
	unknown Hung, Silas T., Wong, C.Y., Osborn, Mark, Kagaoan, Joel, Zhang, L.Z., and Bordeos, Randy, "A S Sensor Induced by Soft EDS Using Magnetoresistive Sensitivity Mapping (MSM)."						"A Study of G	MR Read	

EXAMINER	DATE CONSIDERED
The state of the s	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.